

**REMARKS**

The examiner is thanked for the performance of a thorough search and for considering the references submitted in the Information Disclosure Statement mailed by the Applicants on February 11, 2005.

Claims 1, 6, 12, 17, 22, 27, 32, and 37 have been amended. Claims 2, 3, 13, 14, 23, 24, 33, 34, and 42 have been canceled. No claims have been added. Hence, Claims 1, 5-12, 16-22, 26-32, 36-41 are pending in the application.

Each issue raised in the Office Action mailed June 29, 2005 is addressed hereinafter.

**I. APPLICANTS' STATEMENT OF INTERVIEW**

The Examiner is thanked for extending the courtesy of a telephone interview on October 18, 2005. Applicants' representatives Christopher J. Palermo and Stoycho D. Draganoff, and Examiners Bao Tran To and Bao Quoc To participated in the interview. The claims discussed were Claims 1, 2, and 3. The reference discussed was Povilus, U.S. Patent No. 5,740,425 ("POVILUS"). No agreement was reached.

Applicants identified features of Claim 1 that are not present in POVILUS. With reference to FIG. 3 of the present application and FIG. 14 in POVILUS, the Applicants pointed out that the Phrase, Definer, Quantity, SIItem and SIUnit of FIG. 14 in POVILUS cannot reasonably be interpreted as concepts or normative concepts. The Applicants proposed additional amendments to Claim 1 to further clarify the differences over POVILUS, and the Examiner indicated that a new search would be required in light of these amendments.

**II. CLAIM 1**

The Office Action has rejected Claim 1 as allegedly anticipated under 35 U.S.C. § 102(b) by Povilus, U.S. Patent No. 5,740,425 ("POVILUS"). The rejection is respectfully traversed.

Claim 1 features:

A method of responding to a request for data about an enterprise, the method comprising the steps of:

**storing a plurality of names for a single entity associated with the enterprise as a first plurality of corresponding concepts ...;**

designating a first concept of the first plurality of corresponding concepts as a normative concept, wherein **the normative concept is used to relate the single entity to other entities of the enterprise;**

storing in the database a first relationship of a first relationship type, the first relationship defined for the first concept and an alternative concept of the first plurality of corresponding concepts;

**storing in the database a second relationship of a second relationship type between the first concept and a second concept not among the first plurality of corresponding concepts, wherein the second concept is different than the first concept;**

**receiving a request including data indicating a particular name of the plurality of names,** wherein the request does not include data indicating a first name corresponding to the first concept, wherein:

the particular name corresponds to a particular alternative concept of the first plurality of corresponding concepts; and

the database does not include a relationship defined for the second concept and the particular alternative concept; and

in response to receiving the request, **sending a response including content** of a file that is **associated** in the database **with the second concept**.

Thus, Claim 1 features a method for responding to a request for data about an enterprise. The request includes data indicating a particular name that corresponds to an alternative concept of a first plurality of concepts. The alternative concept is related to a normative concept by a first relationship of a first relationship type. The normative concept is used to relate a single entity to other entities of the enterprise. The normative concept is related to a second concept, which is different from the normative concept and is not among the first plurality of concepts, by a second relationship of a second relationship type. The second concept and the alternative concept are not related by a relationship. In response to receiving the request a response is sent. The response includes content that is associated in the database with the second concept, where the content is determined based at least in part on the first relationship and the second relationship.

POVILUS does not describe all of the above features and does not suggest the combination of the features recited in Claim 1.

1. POVILUS does not describe the feature of Claim 1 of designating a first concept of the plurality of corresponding concepts as a normative concept that is used to relate the single entity to other entities of the enterprise.

In page 16, lines 10-12 of the present Application, it is stated that “[a]ccording to an embodiment of the invention, two or more concepts may be related as alternative names for the same underlying enterprise entity, such as a product, service, or activity of the enterprise.” The present application also states that “[t]o reflect such relationships, each name is treated as a different concept, and the several names for the same entity are connected by relationships of a type ‘is an alternative name for.’” (Page 16, lines 17-19.) The present application further states, in page 16, lines 19-22, that

According to one embodiment described below, one of the concepts is designated the normative concept. The normative concept is used to relate the entity described to other entities of the enterprise, such as in the product type hierarchy. The other concepts referring to the same entity are alternative concepts.

Thus, in one embodiment, a normative concept is a concept that relates a particular entity to other entities of the enterprise, as recited in the claims.

In contrast, POVILUS does not describe or suggest that a Definer or a Phrase (as depicted in FIGs. 13 and 14, and referred to in col. 16, lines 20-40) can reasonably be interpreted as equivalent to concepts of a plurality of concepts as featured in Claim 1. Further, nothing in POVILUS teaches, describes, or suggests that a Definer or a Phrase is used to relate an entity to other entities; in contrast, Claim 1 features designating a first concept of the plurality of concepts as a normative concept that is used to relate a single entity to other entities.

### **Plurality of Corresponding Concepts**

In col. 6, lines 12-65, POVILUS expressly states that only product realms, products, and product characteristics are stored as concepts; these concepts are interrelated based on a Stock Keeping Unit (SKU) number and not based on Definers or Phrases. In particular, in col. 6, lines 33-43, POVILUS states:

The concept structure defines various nodes representing product characteristics. The data structure of the present invention allows these characteristics to take various forms (e.g., numeric performance data, construction, operating environment, etc.). Examples of these concept structure nodes and their relationships are shown in FIGS. 3 and 4. FIG. 3 shows an example of the concept structure nodes that may be created for the Functionality concept frame within the level sensor product realm and FIG. 4 shows an example of the concept structure nodes that may be created for the Materials concept frame.

Thus, the above passage expressly states that the concept structure of POVILUS defines various nodes representing product characteristics. Significantly however, neither this passage nor any of the POVILUS figures teaches or suggests that POVILUS treats Definers and Phrases as concepts or that Definers and Phrases are considered product characteristics. In fact, POVILUS expressly teaches that Phrases and Definers are created in a glossary that is used to allow an end user to interact with an electronic catalog that describes the products and product realms. (Col. 6, line 66 – col. 7, line 12.)

Nothing in POVILUS teaches or suggests that Phrases or Definers are considered as products or product characteristics that are stored as concepts in a concept structure. On the contrary, POVILUS expressly teaches that Definers and Phrases are used to give meaning to nodes in a concept structure and to provide a bridge of understanding between the provider of the products and the seeker of the products represented in the concept structure. (Col. 7, lines 15-22). For this reason, the Definers and Phrases described in POVILUS are not equivalent to the first plurality of corresponding concepts featured in Claim 1.

**Designating a First Concept of the Plurality of Corresponding Concepts as a Normative Concept**

A “Definer” is “Phrase” that has a definition and “a unique association to a node in the concept structure for a product realm” (POVILUS, col. 8, lines 28-29). However, as most clearly illustrated in FIG. 14 of POVILUS, a Definer or a Phrase does not relate a concept node (e.g. concept node 170), such as a particular product in the product realm, to another entity, such as another product or service provided by the enterprise (e.g. concept node 172). Simply put, a Definer in POVILUS is used to describe the characteristics of a particular product that is represented as a node in the concept structure for a product realm.

For example, “a product characteristic labeled ‘highest’ in the Distribution Systems product realm uses the Definer ‘ultrapure’ for its definition.” (POVILUS, col. 8, lines 30-32.) In another example, “a product characteristic labeled ‘low-density foam’ in the Insulation product realm uses a Definer [] that has a synonymous phrase ‘plastic ultralight foam’.” (POVILUS, col. 8, 32-36.) In yet another example, in regards to FIG. 13, POVILUS states that “[a] Quantity 204 is a Definer 202 that represents a numerically measurable feature of a product, like an overall height, nominal voltage, maximum capacity, etc.” (Col. 16, lines 23-25.) For this reason, neither a Definer nor a Phrase can reasonably be interpreted as equivalent to a normative concept that is used to relate a single entity to other entities of the enterprise as featured in Claim 1.

2. POVILUS does not describe the feature of Claim 1 of storing a second relationship of a second relationship type between the normative concept and a second concept that is different than the first concept.

With respect to FIG. 14 of POVILUS, the Office Action asserts that the normative concept of Claim 1 is equivalent to Definer 202/Quantity 204, and that Definer 202/Quantity 204 relates Concept 170 and SIItem 206. Further, during the telephone interview of October 18, 2005, the Examiner asserted that he would consider the alleged relationship between Quantity

204 and SIItem 206 in FIG. 14 of POVILUS as equivalent to the second relationship featured in Claim 1. The Applicants respectfully disagree.

As discussed above, Definers and Phrases are not equivalent to the concepts featured in Claim 1 because POVILUS uses the Definers and Phrases to merely describe a product. While POVILUS may be describing storing concepts that correspond to products and product characteristics, POVILUS does not consider the Definers and Phrases as product characteristics and does not store them as concepts.

Furthermore, as discussed above, a Definer or a Phrase does not relate an entity of an enterprise (e.g. a product represented by a concept) to other entities (e.g. other products represented by concepts). For this reason, Definers, Phrases, and any relationships that may exist among them are not equivalent to the normative concept that is related by a second relationship of a second relationship type to a different second concept as featured in Claim 1.

Furthermore, in col. 16, lines 19-41, POVILUS states:

FIG. 13 shows the glossary portion of the KnowledgeBase. As described above, the glossary includes a plurality of Phrases 200, some of which are Definers 202, which may or may not be used as synonyms that are linked to Definers 202. A **Quantity 204 is a Definer 202 that represents a numerically measurable feature of a product, like an overall height, nominal voltage, maximum capacity, etc. Each Quantity 204 is related to exactly one SIItem 206. An SIItem 206 is a generic, numerically measurable physical property, as documented in the international SI standard, ASTM E380-91a. Examples are distance, electrical potential, and fluid volume.** The SI standard also dictates which units can be used to express each SIItem 206. An SIItem 206 keeps track of these units and, in particular, the unit in which product data is stored (in a Numeric 240, see FIG. 17). **An SIUnit 208 is a unit of measure for a particular SIItem 206.** Each SIUnit 208 knows how to convert a measurement of its type to a measurement of any other unit for the SIItem 206.

FIG. 14 shows how the KnowledgeBase concept structures are related to the glossary. It includes a use relation for associating a Definer 202 with one or more Concepts 170. It also includes a relationship for relating a specific Real Differentia 180 to a specific SIUnit(s) 208. (Emphasis added.)

The above passage makes it clear that a Quantity is a Definer that represents a numerically measurable feature of a product, such as height, nominal voltage, etc. Since POVILUS does not

teach that a Definer is stored as a concept, a Quantity such as Quantity 204 in FIG. 14 of POVILUS is not equivalent to the normative concept featured in Claim 1.

Further, the above passage from POVILUS makes it clear that an SIItem is a generic, numerically measurable physical property (e.g. distance, electrical potential, etc.), and an SIUnit is the unit of measure of an SIItem according to the SI standard. Significantly, a Quantity is related to exactly one SIItem. Thus, a Quantity is a Definer and a SIItem describes a physically measurable property of the product which is being described by that Definer. In other words, the SIItem is a descriptor that further describes the SAME product being described by the Definer, where the product is represented by a concept such as Concept 170 in FIG. 14 of POVILUS.

For this reason, SIItem 206 in FIG. 14 of POVILUS is NOT a concept that is being related by Definer 202/Quantity 204 to another concept such as Concept 170. In contrast, Claim 1 includes the feature of storing a second relationship of a second relationship type between the first (normative) concept and a second concept that is different than the first concept.

For the reasons stated above, POVILUS does not describe all features of Claim 1, and therefore Claim 1 is not anticipated under 35 U.S.C. § 102(b) by POVILUS. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

### III. INDEPENDENT CLAIMS 12, 22, AND 32

Independent claims 12, 22, and 32 have been rejected as allegedly anticipated under 35 U.S.C. § 102(b) by POVILUS.

Claims 12, 22, and 32 include features similar to the features of Claim 1 discussed above. For this reason, it is respectfully submitted that Claims 12, 22, and 32 are patentable under 35 U.S.C. § 102(b) over POVILUS for at least the reasons given above with respect to Claim 1.

### IV. CLAIMS 11, 21, 31, AND 41

Dependent Claims 11, 21, 31, and 41 have been rejected as allegedly anticipated under 35 U.S.C. § 102(b) by POVILUS. The rejection is respectfully traversed.

In the Request for Continuing Examination with Reply to Office Action, which was mailed by the Applicants on April 27, 2005, the Applicants argued that POVILUS does not teach or suggest the features of Claims 11, 21, 31, and 41. The present Office Action does not address or respond to the Applicants' arguments. Instead, the Office Action repeats verbatim the prior rejection. For this reason, reconsideration of the rejection of Claims 11, 21, 31, and 41 is respectfully requested in view of Applicants' prior arguments.

Specifically, the Office Action asserts that POVILUS describes the features of Claims 11, 21, 31, and 41 in col. 10, lines 25-40. This is incorrect.

As pointed out in Applicant's prior arguments, in col. 10, lines 25-40, POVILUS states:

The display would also imply that there may be ultrasonic (node 118) level sensors that sense the level of a solid (node 114), and that sense only a single level (node 128) of liquid (node 112) in a tank.

Once the computer has displayed a navigational path through the concept structure identifying products with the desired combination of characteristics, the lead engineer may instruct the computer to list the available products that have these characteristics. In reviewing the available product listing, the lead engineer would be able to recognize the name of a manufacturer, X, as the manufacturer associated with the pamphlet. The lead engineer may then cause the computer to display the product description content associated with the product manufactured by Manufacturer X. If, upon reviewing the detailed product characteristics, the lead engineer discovers that this product would require an above tank mounting clearance that is not possible given the positioning of the tank in the facility, which allows only 1/2 inch, the lead engineer may search for similar products having a desired maximum for clearance requirement.

Thus, in col. 10, lines 25-40, POVILUS describes an end user (a lead engineer) that performs a product realm search in the database claimed by POVILUS as his invention. Nothing in POVILUS, however, describes that **the activity of searching through a database is stored as an entity in that same database**. All the entities in the POVILUS' database are products and their characteristics, and nothing even suggests that the activities of an enterprise are tracked as



entities in a database. (See POVILUS, col. 6, lines 48-62.) Thus, POVILUS does not teach that activities of an enterprise are stored as entities in a database, and consequently POVILUS necessarily fails to teach the feature of Claims 11, 21, 31, and 41 of “wherein the set of activities of the enterprise include at least one of administration, research, marketing, joint ventures and documentation.”

For this reason, POVILUS does not teach all features of Claims 11, 21, 31, and 41, and reconsideration and withdrawal of the rejection of Claims 11, 21, 31, and 41 under 35 U.S.C. § 102(b) over POVILUS is respectfully requested.

V. CLAIMS 5-11, 16-21, 26-31, AND 36-41

Claims 5-11, 16-21, 26-31, and 36-41 have been rejected as allegedly anticipated under 35 U.S.C. § 102(b) by POVILUS.

Claims 5-11, 16-21, 26-31, and 36-41 are dependent upon one of independent Claims 1, 12, 22, and 32, and thus include each and every feature of their corresponding base claim. Therefore, each of Claims 5-11, 16-21, 26-31, and 36-41 is allowable for the reasons given above for Claims 1, 12, 22, and 32. In addition, each of Claims 5-11, 16-21, 26-31, and 36-41 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 5-11, 16-21, 26-31, and 36-41 are allowable for the reasons given above with respect to Claim 1, 12, 22, and 32.



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Kirkwood et al. – GAU 2135 (To)  
REPLY TO OFFICE ACTION

## VI. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firms check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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